SHARP

AR-M256/AR-M316

Digital Multifunctional System

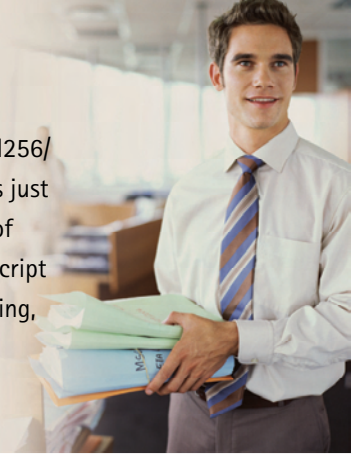
A Versatile Task Force for Everyday Document Demands

digital

ENERGY STAR

COPY | PRINT | NETWORK PRINT OPTION | NETWORK SCAN OPTION | SHARPDESK OPTION | FAX OPTION

A Multifunctional Workflow Enhancer



Reliable copy and print functions, including Sharp Printer Language with Compression, make the AR-M256/AR-M316 fully equipped to meet everyday document needs with workflow-enhancing speed, but that's just the beginning. Powerful expansion options deliver truly outstanding performance to the widest range of businesses. Upgradeable to network printing, the AR-M256/AR-M316 can also support PCL6 and PostScript 3 emulation through optional printer expansion kits. Other add-ons, such as network scanning and faxing, offer multifunctional flexibility. Layers of industry-leading security features safeguard the AR-M256/AR-M316, and an 8.1-inch touch-screen LCD control panel makes it as easy to operate as it is secure.

Key Features

Efficient Copying

- Speedy output of max. 25 ppm (AR-M256) / 31 ppm (AR-M316) and quick first copy time
- Automated job finishing options include booklet making and hole punching
- Optional 100-sheet Reversing Single Pass Feeder and standard stackless duplex module
- Productive Scan Once/Print Many, electronic sorting, and offset stacking
- Versatile image editing functions
- Job Build for large-volume documents

Powerful Printing

- RIP Once/Print Many function for 25/31 ppm
- Speedy printing with Sharp Printer Language with Compression (SPLC)
- Upgradeable to network printing*1 with network utilities
- Supports the latest operating systems and network protocols, including IPv6
- Optional PCL5e/PCL6 and PS3 emulation

Network Scanning and Faxing (option)

- Scan to e-mail/FTP server/desktop
- Sharpdesk for easy, integrated document management on a PC
- LDAP support for easy browsing of e-mail addresses
- PC-fax function enables fax transmission from a PC
- Speedy one-touch auto dialling (500 for fax, 200 for network scanning)

Multi-Layered Security

- Secure network interface card restricts unauthorised access*1
- Optional Data Security Kit erases confidential data
- SSL and IPsec*2 for secure network communications
- Confidential Print secures printing with PIN code authentication
- User authentication for network scanning

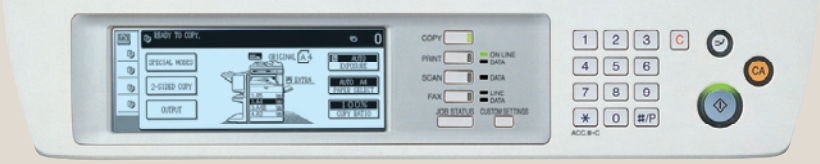
User and Environment-Friendly

- Max. 2,100-sheet paper capacity with Auto Tray Switching
- Job Separator option outputs copies and printouts/faxes onto separate trays
- Energy Star certified
- Lead and chromium-free design (RoHS compliant)

*1: Requires optional AR-P27
*2: Available at a later date

8.1-Inch LCD Panel NEW

The AR-M256/AR-M316's logically designed control panel features a wide, clear **touch-screen LCD** with easy-to-follow guidance. For example, when adjusting the edge/centre erase function or, in the event of a paper jam, the LCD displays step-by-step instructions to guide you through the necessary procedures.



COPYING

Speedy Copying and Quick First Copy Time

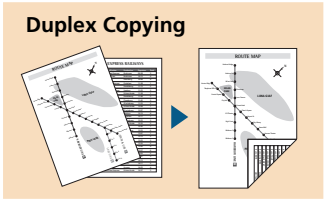
The AR-M256/AR-M316 has a quick first copy time of **4.8/4.5 seconds** to save valuable time when performing multiple short-run jobs. Also, with a continuous copy rate of up to **25/31 cpm***, you can do more copy jobs in less time.

* A4 size, portrait

First copy time

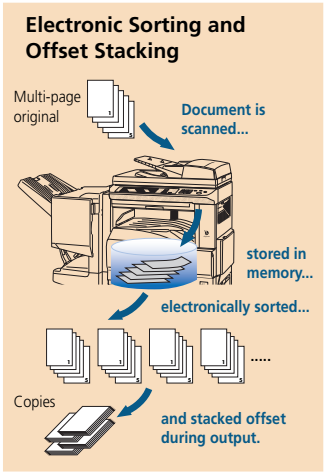
Built-in Stackless Duplex Module

The AR-M256/AR-M316 can automatically produce **duplex copies** from one- or two-sided originals. This reduces paper costs and helps save filing space. Duplex copying is even more productive when used together with the **optional RSPF** (reversing single pass feeder), which efficiently feeds in up to **100 pages** of either one- or two-sided originals.



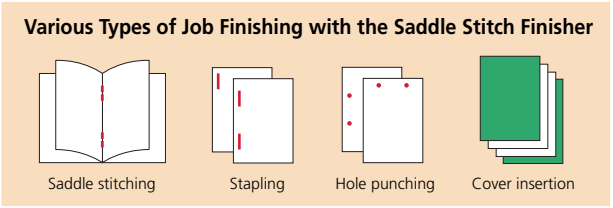
Electronic Sorting and Offset Stacking

The AR-M256/AR-M316's Scan Once/Print Many (SOPM) function does one scan of multiple-page documents and stores them in memory for making up to **999 copies** of each page. The Electronic Sorting function then **automatically collates** multiple sets of copies in page order without the aid of a sorter. The AR-M256/AR-M316 also stacks each set slightly shifted apart from the previous (**offset stacking**) for easy retrieval. All this adds up to speedy copying that boosts productivity even for large-volume documents.



Automated Job Finishing

The AR-M256/AR-M316 makes it easy to create professional-looking booklets. Working together with the highly productive built-in stackless duplex module, the optional **Saddle Stitch Finisher** folds and staples sets of documents to make completed booklets. A **Punch Module** allows you to punch holes in documents for easy filing. A **Finisher** is also available for jobs that require only simple sorting and stapling.



Job Build for Large-Volume Scanning

With optional extra memory installed, the AR-M256/AR-M316 easily handles copy jobs exceeding the RSPF's 100-sheet capacity*1. Large-volume documents of up to 2,970 pages*2 are automatically stored in memory. Users can then print the entire document in a single run.

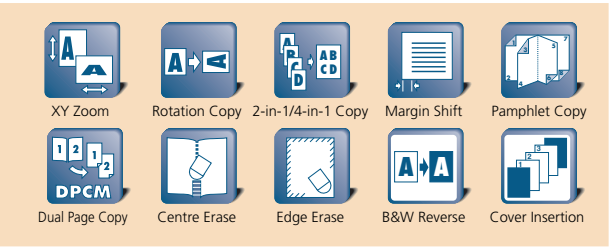
*1: A4 size
*2: Measured using Sharp's standard chart (A4 with 6% coverage). The actual storage limit depends on the amount of memory installed.

Large Paper Capacity

The AR-M256/AR-M316 comes standard with 1,100-sheet paper capacity: two 500-sheet drawers and a 100-sheet multi-bypass feeder. For large-volume jobs and a wider selection of available paper sizes, the AR-M256/AR-M316 can accommodate two types of extra paper drawers for a total paper capacity of up to 2,100 sheets. When a tray runs out of paper, the **Auto Tray Switching** function automatically switches to another paper tray filled with the same size paper.

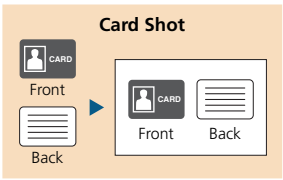
Versatile Editing Functions

The AR-M256/AR-M316 is standard equipped with various image editing functions that make copying more convenient.



Card Shot

This function enables one-touch copying of both sides of a card (credit cards, ID cards, etc.) onto a single page.



High-Quality Imaging

600-dpi resolution and 256-level greyscale ensure detailed reproduction. **Digital Automatic Exposure Control** provides optimum exposure level, and **Text/Photo** mode automatically adjusts the contrast for originals containing both text and photos.

Other Key Features

- 25 to 400% zoom with preset copy ratios (50 to 200% via RSPF)
- Automatic paper/magnification selection
- Can handle heavy paper stock up to 200 g/m²
- Copy auditing (100 accounts)
- Pre-Heat and Auto Power Shut-Off modes

PRINTING

High-Quality Printing with Sharp Technology

The AR-M256/AR-M316 is a high-performance printer incorporating **Sharp Printer Language with Compression (SPLC)** technology. SPLC effectively reduces the data size of print jobs, speeding up the data transfer time and printing process while improving overall throughput. Also, the **RIP Once/Print Many** function saves print data in the AR-M256/AR-M316's internal memory and transfers it to output at a quick rate of **25/31 ppm** in 600-dpi resolution. Both **IEEE 1284** parallel and **USB 2.0** ports are provided as standard. The AR-M256/AR-M316's 600-dpi printing resolution can be enhanced to **1,200 dpi** (with smoothing) for ultra-detailed reproduction.

PCL6 and PostScript 3 Emulation

When equipped with the optional AR-P27 Printer Expansion Kit, the AR-M256/AR-M316 supports **PCL5e** and **PCL6** printer languages. For compatibility with more fonts and better graphics handling, **PostScript 3** is available with the AR-PK1 N PS3 Expansion Kit.

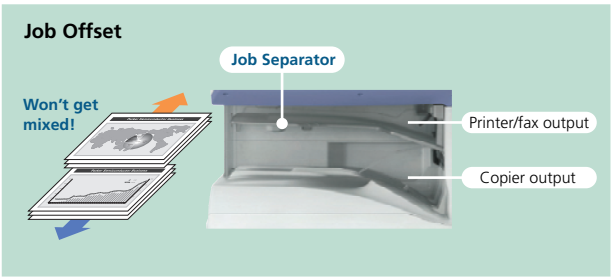
Document Finishing

Choose the optional Finisher or Saddle Stitch Finisher to automate time-consuming tasks such as sorting and stapling. The Saddle Stitch Finisher automatically arranges your document in the proper page layout and makes booklets. A Punch Module is also available to make hole-punched documents.

Job Offset and Job Separator

The AR-M256/AR-M316 ensures your documents will stay neatly organised even when others are using the machine at the same time. To make it easier to locate and retrieve your documents from the tray, the AR-M256/AR-M316's Job Offset function stacks each print job slightly shifted apart from one another. In addition, a convenient Job Separator* outputs copied documents onto a separate tray, preventing them from getting mixed in with printouts and faxes.

* Requires optional AR-TR3



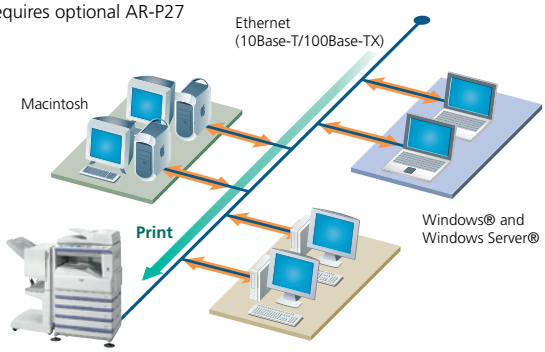
Other Key Features

- Duplex printing
- N-up, Fit-to-Page, Watermarks

Powerful Network Printing

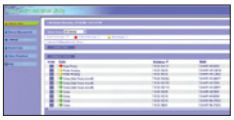
The AR-M256/AR-M316 works as a network printer* with the latest and most commonly used network operating systems and protocols, including IPv6, and even in mixed network OS environments. With a 64-bit, 300-MHz CPU, you get powerful network printing via 100Base-TX and 10Base-T Ethernet standards.

* Requires optional AR-P27

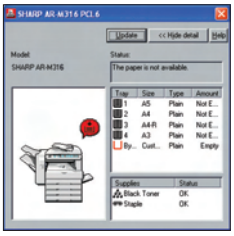


Network Utility Software

- **Printer Administration Utility** makes printer networks easier to manage by allowing network administrators to customise monitored items and view settings such as the IP address directly from their PC through a standard Web browser.
- If the AR-M256/AR-M316 is low on paper or toner, the **Printer Status Monitor** will alert you in the form of easy-to-understand graphics, allowing you to avoid problems before they arise.



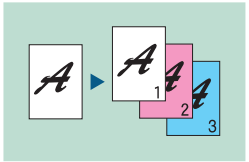
Web-based PAU 4.0



Printer Status Monitor

Various Print Applications

- With **PDF/TIFF Direct Print**, you save valuable time by printing PDF and TIFF files*1 without using the printer driver or opening applications: you can print the file directly from a Web page (push print) or an e-mail attachment.
- **Carbon Copy Print** mode automatically outputs multiple printouts of the same data on plain and/or coloured paper from different paper trays*2; convenient for invoices and purchase orders.



- **Proof Printing** allows you to check a trial set before printing out a document in large numbers in order to avoid printing mistakes.

*1: Direct PDF printing requires optional AR-PK1 N; please consult your sales representative for further details.

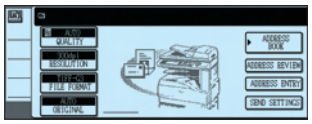
*2: Requires optional paper feed unit

Other Key Features

- Pamphlet Style printing, Mirror Image
- Barcode font compatibility, font/form download

NETWORK SCANNING

A3 Network Scanning

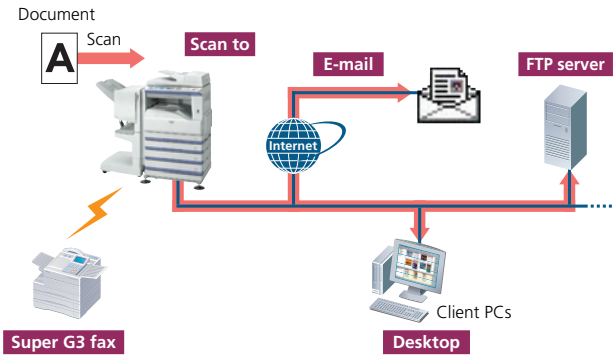


The 100-sheet RSPF and optional MX-NSX1 Network Scanner Expansion Kit turn the AR-M256/AR-M316 into a **network scanner*** that can be used with any Windows PC on the network. Converting any type of paper-based document, up to A3 in size, into an editable digital file is as easy as making a copy.

* Also requires optional AR-P27

Multiple Distribution of Scanned Files

With the touch of a few buttons, you can choose different ways to distribute your scanned documents. **Scan to E-mail** allows you to send documents as an attachment to any e-mail address over the Internet. **Scan to FTP Server** lets you scan a document directly to an FTP server for special applications such as company-wide posting or archiving. **Scan to Desktop** enables you to send scanned documents directly to your PC desktop. With Sharpdesk, Sharp's powerful but easy-to-use document management software, editing and managing scanned documents is easier than ever. Also, **Scan to Fax** enables Super G3 faxing (see page 5).



LDAP Support

Built-in LDAP (lightweight directory access protocol) support eliminates the need to enter or register full addresses. Simply enter the first few letters of the recipient's name and the AR-M256/AR-M316 displays a list of possible matches on your company's LDAP server. This feature saves precious time and lets you avoid errors when typing e-mail addresses. After searching, selected addresses can be stored to the AR-M256/AR-M316's address book. In addition, the integrated **User Authentication** function (see page 6) blocks unauthorised access by requiring the user to log in before searching for an address.

Easy Text Entry

Use the LCD control panel's onscreen keyboard to customise file names or e-mail messages and subject titles, making it easier for the recipient to recognise and archive this information.

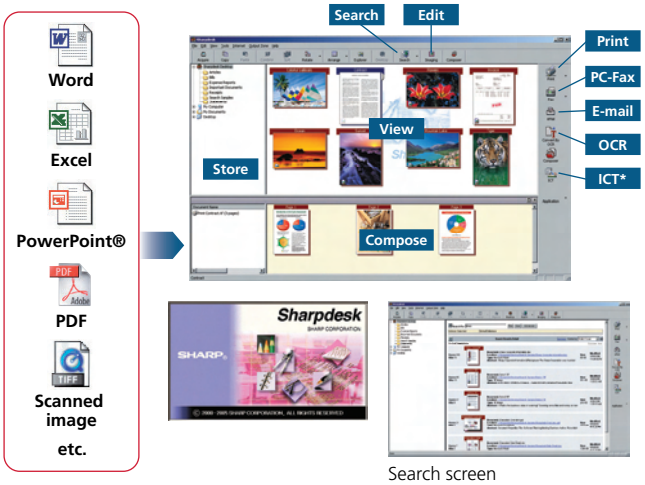
TWAIN Support

With support for the TWAIN standard, the AR-M256/AR-M316 allows you to use scanned images with any commercially available TWAIN-compliant application (push out method).

Sharpdesk for Total Document Management

Sharpdesk is an original Sharp application that provides integrated desktop management of documents in over **200 file formats**, including scanned paper-based documents and those created with popular applications such as Word. It allows you to organise, edit, search and distribute your documents, all with simple drag-and-drop operation.

- Intuitive desktop display features **thumbnail** viewing
- Sharpdesk Imaging provides **annotation** tools for paper-free proofreading
- Sharpdesk **Composer** combines different types of files into a single document
- **Optical character recognition** converts documents into editable text files
- **Output zone** distributes files to e-mail, printers and other applications
- **File search** allows searching by file name, keyword or thumbnail



Search screen

* Image Compression Tool for converting images into high-compression PDF files.

FAXING

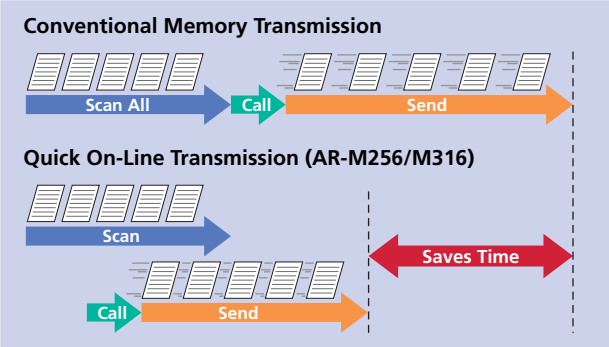
High-Speed Operation

The optional AR-FX7 Fax Expansion Kit turns the AR-M256/AR-M316 into a **Super G3 fax** machine featuring a fast modem speed of 33.6 Kbps. Using JBIG compression technology, the AR-M256/AR-M316 can send an A4 size page in under 3 seconds*. Working together with the machine's 1.5-second scanning, this function greatly enhances the efficiency of your faxing jobs.

* Based on Sharp's standard chart with approximately 700 characters (A4 portrait) at standard resolution

Quick On-Line Transmission

The AR-M256/AR-M316 starts dialling and transmitting a multi-page document as soon as the first page is scanned into memory. This greatly reduces the overall time it takes to send the document.

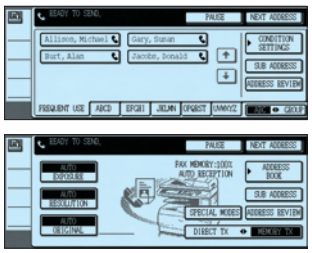


Duplex Transmission and Reception

With the optional RSPF, the AR-M256/AR-M316 scans both pages of two-sided documents and sorts them in memory. The pages are then transmitted in the proper order. Thanks to the standard duplex module, the AR-M256/AR-M316 can also print incoming faxes onto both sides of paper, thus saving you paper costs.

500-Number Auto Dialling

Register up to 500 numbers into the customisable directory of one-touch auto-dial keys, listed in alphabetical order for easy searches of specific numbers.



F-Code Communication

Conforming to the ITU-T F-Code (sub-address and passcode) standard, the AR-M256/AR-M316 is capable of F-Code confidential communication, F-Code relay request transmission, and F-Code memory polling with other fax machines regardless of the manufacturer or model.

Super Fine Mode

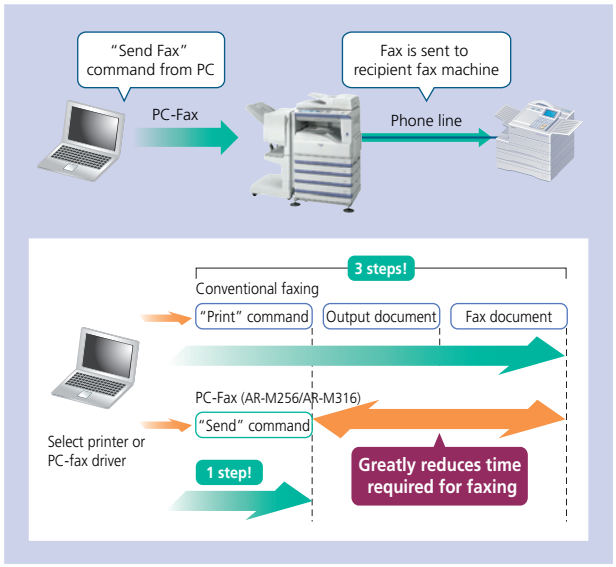
You can set the AR-M256/AR-M316 to this ultra-high resolution to give the recipient crisp, clear reproduction of detailed images and fine text.

Multi Access

You get two different functions simultaneously; for example, you can scan documents into memory for transmission while you receive an incoming fax.

PC-Fax

A PC-Fax function allows you to directly send a document created on your PC to a recipient's fax machine via the AR-M256/AR-M316. Since all faxing procedures are done on your PC without printing to paper, this function saves time, increases faxing productivity, and retains original document quality.



Other Key Features

- **Automatic print reduction** automatically reduces the size of received faxes to fit the size of the printing paper
- **Memory transmission** stores documents in memory, allowing the originals to be returned to the user quickly
- **Memory reception** saves incoming faxes in memory if the AR-M256/AR-M316 runs out of paper or toner
- **Timer transmission** enables unattended after-hours operation when reduced phone rates are in effect
- **Polling** allows the user to retrieve a document left in the feeder of a remote fax machine
- **Programme keys** (up to 8 keys) are available to set up frequently used transmissions for instant recall
- **Long originals** (up to 1,000 mm long) can be sent using the RSPF (Note: Not possible for A3-wide paper or in Super Fine mode)
- **Dual page scan** allows faxing of pages from an open book or documents placed side by side
- **Job separator** separates incoming faxes from copier jobs
- **Offset stacking** slightly shifts individual faxes as they arrive for easy retrieval
- **Broadcast transmission** to up to 200 destinations
- **Anti-junk fax** blocks unwanted faxes from up to 50 specified fax numbers

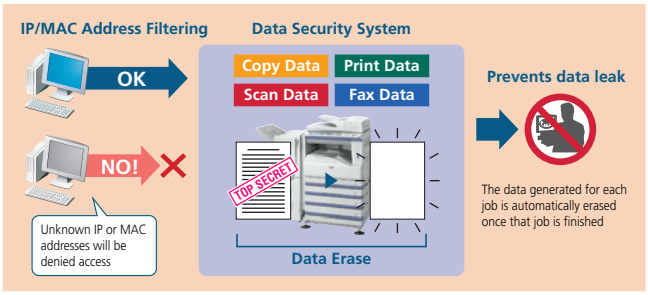
SECURITY

Industry-Leading Multi-Layered Security

With multiple levels of network and data security to cover a wide range of security needs, Sharp's industry-leading security solutions bring today's businesses increased confidence and peace of mind. The AR-M256/AR-M316 safeguards sensitive data with powerful, enhanced security functions that eliminate the worry of unauthorised use and guarantee greater protection for your confidential information.

Data Security Kit

Digital copier/printers or multifunction products can retain hundreds of pages of confidential information from previous jobs on their internal memory. To safeguard this information from unauthorised access, the optional **Data Security Kit** automatically **erases** the data after each job is complete.



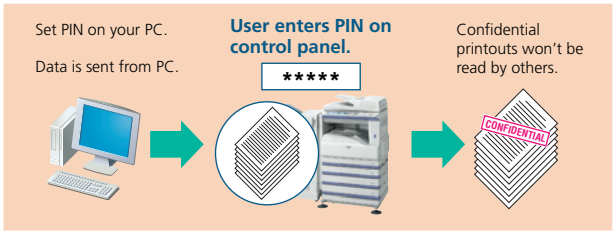
IP/MAC Address Filtering

The AR-M256/AR-M316's network interface card* provides highly secure operation by restricting access to the AR-M256/AR-M316 on your office network. Only PCs that have either their **IP address** or **MAC (media access control) address** registered are allowed to use the AR-M256/AR-M316. Attempted access from an unknown IP or MAC address will be denied, preventing unauthorised use.

* Requires optional AR-P27

Print Hold and Confidential Print

To keep others from seeing confidential documents as they are being printed out, the AR-M256/AR-M316's **Print Hold** function stores print data in its memory and withholds output until the user executes a print command from the control panel. For added security, the **Confidential Print** function requires the user to enter in a PIN (personal identification number) at the machine before printing can begin.


Set PIN on your PC.
Data is sent from PC.
User enters PIN on control panel.
*****
Confidential printouts won't be read by others.
CONFIDENTIAL

User Authentication for Network Scanning

To prevent unauthorised use of network scanning, the AR-M256/AR-M316 supports user authentication, which requires users to log in to the machine before performing any network scanning operations.

Secure Sockets Layer NEW

A newly introduced SSL (secure sockets layer) enables the encryption of data communications to prevent data leakage through the network when printing via IPP or browsing secure Web pages (HTTPS).

IPv6 and IPsec Support NEW

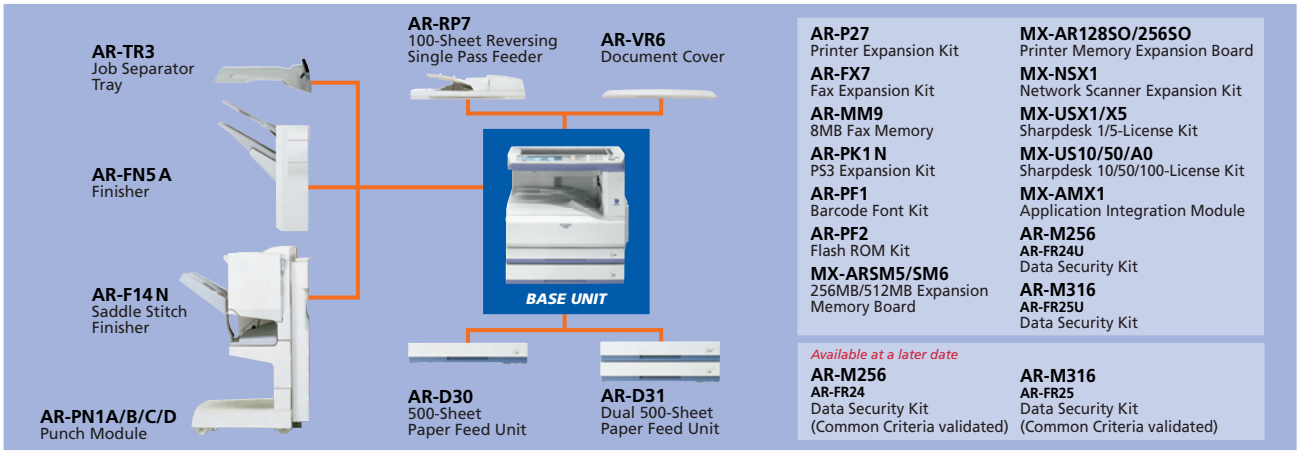
The AR-M256/AR-M316 supports IPv6, the next-generation Internet protocol. An obligatory part of IPv6 is IPsec* (IP Security), a set of protocols for securing Internet protocol (IP) communications. IPsec encrypts and authenticates traffic between specified parties, giving IPsec-compatible products an extremely high level of network security.

* Available at a later date

Auditing Mode

An auditing mode requires users to enter a five-digit PIN code to gain access to the control panel. This feature also restricts users from printing to the AR-M256/AR-M316.

System Configuration



AR-P27
Printer Expansion Kit
AR-FX7
Fax Expansion Kit
AR-MM9
8MB Fax Memory
AR-PK1N
PS3 Expansion Kit
AR-PF1
Barcode Font Kit
AR-PF2
Flash ROM Kit
MX-ARSM5/SM6
256MB/512MB Expansion Memory Board

MX-AR128SO/256SO
Printer Memory Expansion Board
MX-NSX1
Network Scanner Expansion Kit
MX-USX1/X5
Sharpdesk 1/5-License Kit
MX-US10/50/A0
Sharpdesk 10/50/100-License Kit
MX-AMX1
Application Integration Module
AR-M256
AR-FR24U
Data Security Kit
AR-M316
AR-FR25U
Data Security Kit

Available at a later date

AR-M256
AR-FR24
Data Security Kit
(Common Criteria validated)

AR-M316
AR-FR25
Data Security Kit
(Common Criteria validated)

Note: AR-F14N requires AR-D30 or AR-D31 and locally available cabinet.

SPECIFICATIONS

General

Type	Desktop
Engine speed*1	Max. 25 cpm/ppm (AR-M256) Max. 31 cpm/ppm (AR-M316)
Paper size	Max. A3, min. A5
Paper capacity (80 g/m²)	Standard: 1,100 sheets (two 500-sheet trays and 100-sheet multi-bypass tray) Maximum: 2,100 sheets
Warm-up time*2	23/25 sec.
Memory	Standard: 32MB Maximum: 1,056MB
Power requirements	230~240V AC 50/60 Hz
Power consumption (max.)	1.45 kW
Dimensions (W x D x H)	623 x 615 x 665 mm
Weight	Approx. 49.2 kg
Features	• Job build • Pre-heat/auto power shut-off modes • Toner save mode • User control (100 accounts)

Copier

Original paper size	Max. A3
First copy time*3	4.8/4.5 sec. (document glass), 9.3/9.3 sec. (RSPF)
Continuous copy	Max. 999 copies
Resolution	Scan: 400 x 600 dpi Print: 600 x 600 dpi
Gradation	Scan: 256 levels Print: 2 levels
Zoom range	25 to 400% (50 to 200% using RSPF) in 1% increments
Preset copy ratios	10 ratios (5R/5E)
Features*4	• Auto paper selection (mixed size feeding) • Auto magnification selection • Paper type selection • Auto tray switching • Rotation copy • Electronic sorting • Margin shift • Dual page copy • Multi-shot (4-in-1, 2-in-1) • Cover insertion • Pamphlet copy • Edge/centre erase • 2-sided copy orientation change • XY zoom • B/W reverse • Duplex copy • Job programme • Card shot

Printer (standard SPLC driver)

Resolution	600 x 600 dpi
Enhanced resolution	600 x 1,200 dpi equivalent with smoothing
Memory	Shared
Interface	IEEE 1284, USB 2.0
Supported OS	Windows NT® 4.0 SP5 or later, Windows® 98/Me/2000/XP, Windows Vista™
Printer language	SPLC (Sharp Printer Language with Compression)
Available fonts	Host-based
Features	• RIP Once/Print Many • Fit to page • Watermarks • Image adjustment • Duplex print • N-up (2/4) • Paper/output tray selection • Offset output

Network Printer (optional AR-P27 required)

Interface	10Base-T/100Base-TX
Supported OS*5	Windows NT® 4.0 SP5 or later, Windows Server® 2003, Windows® 98/Me/2000/XP, Windows Vista™, Mac OS 9.0 to 9.2.2, Mac OS X 10.1.5, 10.2.8, 10.3.3 to 10.3.9, 10.4 to 10.4.8
Network protocols*5	TCP/IP (IPv4, IPv6), IPX/SPX (NetWare), NetBEUI, EtherTalk (AppleTalk)
Printing protocols	LPR, Raw TCP (port 9100), POP3 (e-mail printing), HTTP, Novell Printserver application with NDS and Bindery, FTP for downloading print files, EtherTalk printing, IPP
PDL emulation	PCL 6/5e, PS3 emulation*6
Available fonts	80 fonts for PCL, 136 fonts for PS3 emulation*6
Features*4 *7	• Job retention (print hold, proof print, confidential print) • Carbon copy print • Pamphlet style • Binding edge • N-up (2/4/8/16) • Cover/transparency insertion • Form overlay • Barcode font compatibility • Negative image • Mirror image • Printer administration utility and status monitor • IP/MAC address filtering • Direct PDF/TIFF printing • E-mail printing • Font/form download • SSL and IPsec support

Network Scanner (optional MX-NSX1, AR-P27, and memory*8 required)

Compatibility	TWAIN compliant (push out method)
Resolution	Optical: 400 dpi (setting range: 200, 300, 600 dpi) Output: 200, 300, 600 dpi
File formats	TIFF, PDF
Scanner utilities	Sharpdesk
Scan destinations	Scan to e-mail, desktop, FTP server
Features	• LDAP support • Direct entry (address, subject, message) • 200 one-touch dials • Group dials • Broadcasting

Facsimile (optional AR-FX7 required)

Compression method	MH/MR/MMR/JBIG
Communication protocol	Super G3/G3
Transmission time	Less than 3 seconds*9
Modem speed	33,600 bps to 2,400 bps with automatic fallback
Transmission resolution	From Standard (203.2 x 97.8 dpi) to Super Fine (406.4 x 391 dpi)
Recording width	A3 to A5
Memory	Standard 2MB, expandable to 10MB
Grey scale levels	Equivalent to 256 levels
Features*4	• Duplex transmission/reception • Quick on-line transmission • F-Code compatibility (confidential, relay broadcast) • Error correction mode • 500 one-touch dials • Group dials (up to 50 groups and 200 destinations) • 8 job programmes • Broadcasting number registration • Polling • Memory transmission/reception • Auto reduction (transmission/reception) • Rotation transmission/reception • Print actual size • Long original transmission (max. 1,000 mm)*10 • PC-Fax transmission*11 • Timer transmission • Activity report • Anti-junk fax • Dual page scan

* 1 : Copy mode: When copying same document continuously on portrait A4 plain paper in non-offset mode. Print mode: When printing same document continuously on portrait A4 plain paper in non-offset mode, excluding processing time.
* 2 : Door left open for 60 seconds, standard condition, polygon motor stopped.
* 3 : Portrait feeding of A4 sheets from main unit's 1st paper tray, polygon motor running.
* 4 : Some features require option(s).
* 5 : Optional AR-PK1N required for Mac OS and EtherTalk. Windows Vista and IPsec available at a later date.
* 6 : Optional AR-PK1N required for PS3.
* 7 : Some features are not available according to the printer driver used.
* 8 : 128MB or more additional memory.
* 9 : Based on Sharp's standard chart with approx. 700 characters (A4 portrait) at standard resolution in Super G3 mode, 33,600 bps, JBIG compression.
*10 : Not available in Super Fine mode.
*11 : For Windows environments only.

- Design and specifications are subject to change without prior notice.
- Colour variations to products may occur due to printing.
- Some features require Optional items. Please consult with an authorised Sharp Reseller for details.
- All information and technical details are correct as at machine release date.
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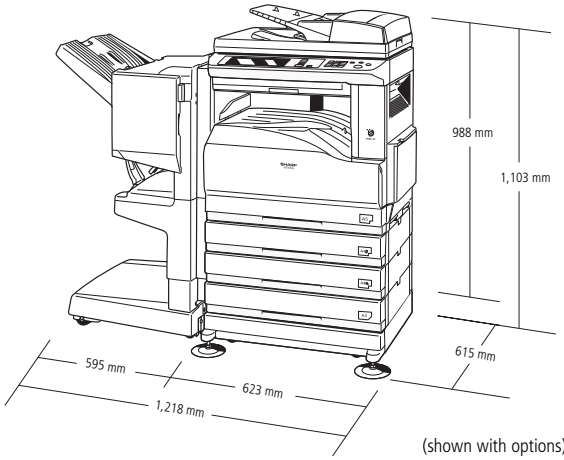

(shown with options)

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